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# *Aechmea sucreana*, a New Species of Bromeliaceae from Espírito Santo State, Brazil

Gustavo Martinelli and Cláudia Magalhães Vieira

Instituto de Pesquisas Jardim Botânico do Rio de Janeiro, Rua Pacheco Leão 915, Horto Florestal, Rio de Janeiro, RJ, Brasil, CEP 22460-030. gmartine@jbrj.gov.br; cmvieira@netrio.com.br

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**ABSTRACT.** A new species of Bromeliaceae, *Aechmea sucreana*, found in Espírito Santo State, Brazil, is described and illustrated. It is distinguished from its closest relative, *A. blanchetiana*, on the basis of inflorescence features.

**Key words:** *Aechmea*, Brazil, Bromeliaceae.

During development of the Biology and Conservation of Bromeliaceae of the Atlantic Rainforest Project, a scientific program of the Rio de Janeiro Botanic Garden Research Institute, 11 scientific expeditions were made between 1998 and 1999. The project encompassed the largest remaining area of rain forest, and major fragments. A total of 92,394 km of roads and trails were accessed in 78 conservation units and 59 private areas through 14 Brazilian states. Seven hundred twenty-nine taxa were obtained and observed, some of them considered new taxa to this family, representing ca. 69% of the total Bromeliaceae recounted in the literature for the Atlantic Rainforest biome (Martinelli, unpublished data). Information on the biology and the status of conservation of the Bromeliaceae species and their respective populations were obtained and stored in a database. In addition to voucher specimens deposited in RB, one live collection was secured for taxa considered endemic and/or threatened with extinction and placed into cultivation. A total of 1842 specimens were collected and are being cultivated in a specially built greenhouse in the Rio de Janeiro Botanic Garden Research Institute. The living collections are part of an ex-situ conservation program, including the maintenance of a germplasm bank and the propagation and later re-introduction, when necessary, of the species into their original habitats.

This paper presents a new species of *Aechmea* collected by the project during the expedition in Espírito Santo State, Brazil.

***Aechmea sucreana* Martinelli & C. Vieira, sp. nov.** TYPE: Brazil. Espírito Santo: Linhares, Imbiriba, Fazenda São Jorge, próximo da Reserva Florestal de Linhares, Mata Atlântica, Restinga aberta, 10 m s.m., 19°11'27"S, 39°52'83"W, 5 Aug. 1999 (fl), G. Martinelli 15559 & L. Heron, R. Azoury (holotype, RB 353539). Figure 1.

Species nova *Aechmeae blanchetianae* affinis sed inflorescentia brevior, rachidibus internodiis minoribus, floribus plus dense dispositis, ac foliis minoribus differt.

Plant flowering to 1.2 m high. Leaves ca. 25, erect or suberect, forming a broadly funnellform rosette; sheaths elliptic, 22–30 × (9.5)14–16 cm, spinose-serrate toward apex, pale brown, densely lepidote on both surfaces; blades yellowish green with reddish nuances on both surfaces, otherwise totally red, ensiform to narrowly triangular, 34–53 × (4)6–11 cm, lepidote on both surfaces, mainly on abaxial surface, spinose-serrate, spines dark brown, 1–2 mm long, apex acute, ending in a rigid, pungent spine. Inflorescence erect; scape reddish green at base, red toward apex, often exceeding the leaves, 41–57 × 0.5–0.7 cm, sparsely white lanate; scape bracts reddish pink, erect, strongly imbricate, enfolding the scape, oblong, entire, with acuminate apex, 9–17 × 3–4.5 cm, chartaceous, lepidote on both surfaces; fertile part of inflorescence 2- to 3-branched, many-flowered, with central rachis red, (25)36–48 cm long, sparsely white-lanate to glabrescent; primary bracts reddish pink, shorter than the branch but greatly exceeding the basal sterile portion, entire with acuminate apex, 8–15 × 1.5–3.5 cm, shorter toward inflorescence apex, chartaceous, lepidote on both surfaces; primary branches red-pink, 9 to 13, spreading-ascending, the lowest (9)12–22 cm long; secondary bracts similar to primary bracts, 3.5–5 × 0.9–2 cm; spikelets 3- to 10-flowered, 4–12 cm long, with internodes 0.8–1.3(1.5) cm; floral bracts red-pink, slightly shorter than to little exceeding the sepals (but often exceeding floral buds), 2–3.5 times as long as the



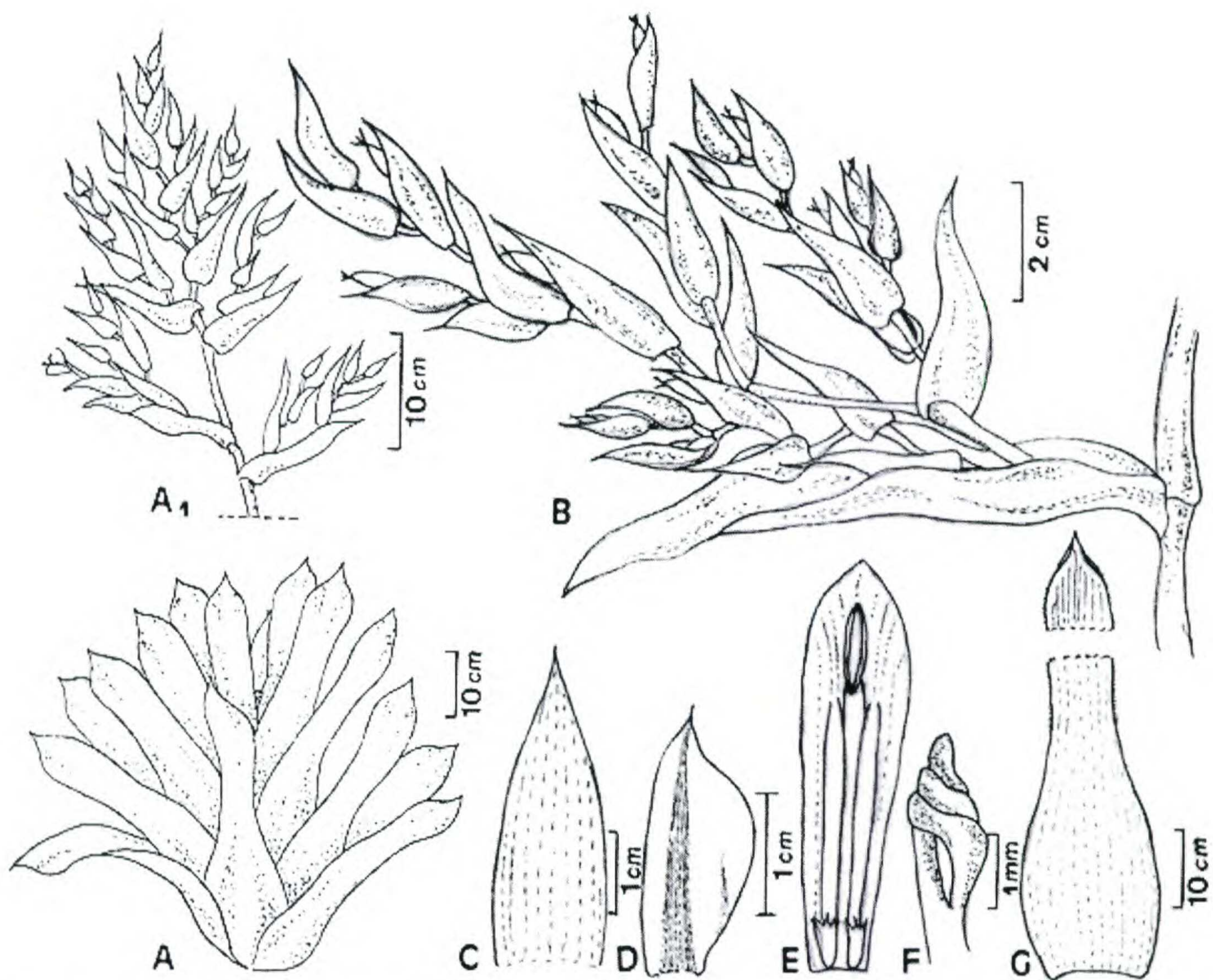


Figure 1. *Aechmea sucreana* Martinelli & C. Vieira (*G. Martinelli 15559 et al.*) —A. Habit. —A<sub>1</sub>. Fertile part of inflorescence. —B. Segment of the inflorescence with primary branch. —C. Floral bract. —D. Sepal. —E. Petal (showing longitudinal callosities and petal appendages) and antepetalous stamen. —F. Stigma. —G. Leaf.

internodes, not covering the rachis, ovate, convex, multi-nerved, (1.8)2.4–3.8 × 1–1.1 cm, entire, with acuminate apex, sparsely lepidote on abaxial surface. Flowers polystichous, laxly to densely arranged, sessile, ca. 4 cm long; floral buds green-yellow; sepals green with apex rose and mucro red, connate at base for ca. 3 mm, ovate or narrowly ovate, strongly asymmetric, 1.6–2.1 × 1 cm, mucronate, mucro 1–2 mm long, sparsely white-lanate to glabrescent on abaxial surface; petals pale yellow, becoming pale brown after anthesis, free, linear-spatulate, apex suberect at anthesis, acute, 3.2–3.4 × 0.6 cm, bearing two longitudinal callosities parallel to staminal filaments, ca. 2.2 cm long; petal appendages 2 per petal, basal, spatulate-undulate with apex unevenly toothed, ca. 3 × 2–3 mm; stamens shorter than petals, included at anthesis, ca. 2.8 cm long; filaments 2.4–2.5 cm long, the antepetalous ones adnate to the petals for ca. 1.8 cm; anthers linear-oblong, dorsifixed at the middle, 8–9 × 4 mm, apex acute; ovary subtrigonous, 8–10 × 4–5 mm, pale green, sparsely white-lanate, pla-

centae fixed in the upper half of the ovary, ovules numerous, caudate; epigynous tube ca. 4 mm long; style ca. 3.2 cm long; stigma conduplicate-spiral, ovoid. Fruit ellipsoid, 10–12 × 7–8 mm, red.

This species was found growing in open thicket vegetation (*restinga*), as terrestrial in white sand, forming dense groups. Although the occurrence of *Aechmea blanchetiana* (Baker) L. B. Smith in *restinga* of Linhares was registered by herbarium collections (RB), no overlap was noticed between these two species. The local vegetation where *A. sucreana* was found is endangered due to cattle activities developed in the area.

*Aechmea sucreana* is similar to *A. blanchetiana* in overall appearance, but can be easily distinguished by its shorter inflorescence, spikelets with shorter internodes, flowers more densely arranged, and shorter leaves.

The specific epithet is a tribute to the Brazilian botanist Dimitri Sucre, who made extensive plant collections throughout the Brazilian state of Espírito Santo.



*Paratypes.* BRAZIL. **Espírito Santo:** Linhares, Imbiriba, Fazenda São Jorge, próximo da Reserva Florestal de Linhares, Mata Atlântica, Restinga aberta, 10 m s.m., 19°11'27"S, 39°52'83"W, 5 Aug. 1999 (fl), *G. Martinelli 15559-A* & *L. Heron, R. Azoury* (MO), *G. Martinelli 15559-B* & *L. Heron, R. Azoury* (CEPEC), *G. Martinelli 15559-C* & *L. Heron, R. Azoury* (R), *G. Martinelli 15559-*

*D* & *L. Heron, R. Azoury* (K), *G. Martinelli 15559-E* & *L. Heron, R. Azoury* (SPF) (Inst. Bot.), *G. Martinelli 15559-F* & *L. Heron, R. Azoury* (CVRD).

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